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L13: Entry 21 of 56

File: USPT

Jul 25, 2000

DOCUMENT-IDENTIFIER: US 6093705 A

TITLE: Methods and compositions for sedating, anaesthetizing and euthanizing aquatic organisms

Abstract Text (1):

Methods for sedating, anaesthetising and/or euthanising aquatic organisms, wherein the organism is contacted with methyl salicylate, ethyl salicylate or both, usually in solution. Active compositions for use in such methods are also provided, including compositions containing one or both of methyl salicylate and ethyl salicylate in combination with one or both of eugenol and iso-eugenol.

Brief Summary Text (18):

The active compound(s) (methyl and/or ethyl salicylate) may be in admixture with one or more additional food-grade aquatic sedative, anaesthetic and/or euthanising agents such as eugenol and iso-eugenol.

Brief Summary Text (21):

The composition can include one or more additional food-grade aquatic sedative, anaesthetic and/or euthanising agents, with again eugenol and/or iso-eugenol being preferred.

Brief Summary Text (23):

Most conveniently, the composition comprises ethyl salicylate and iso-eugenol.

Brief Summary Text (34):

In addition, methyl salicylate and/or ethyl salicylate can be combined with one or more alternative food-grade aquatic sedative anaesthetic and/or euthanising agents. In particular, a composition which includes one or both of ethyl salicylate and methyl salicylate in combination with one or both of eugenol and iso-eugenol can be formulated. The utility of eugenol and iso-eugenol as aquatic anaesthetics, is described in WO 95/17176.

Brief Summary Text (38):

The concentration of active agents will of course also vary when methyl and/or ethyl salicylate is combined with other agents such as eugenol and/or iso-eugenol, again depending upon the effect to be induced.

Detailed Description Text (61):

Technical grade 99% ethyl salicylate, 99% methyl salicylate and 99% iso-eugenol were used in these trials. For each trial the anaesthetic agents being tested were either dispersed in Polysorbate 80 (Liposorb 20.TM.), Polysorbate 20 (Tween 20.TM.), or 99% ethanol to produce a stock 50% (w/w) dispersant.backslash.anaesthetic mixture. Immediately prior to each trial, the required quantity of the mixture was weighed then dispersed in approximately 500 ml seawater to form a milky suspension.

Detailed Description Text (92):

This mixture produced a very rapid onset of Phase 4 anaesthesia in mullet exposed to a combination of 50 mg/l ethyl salicylate and 20 mg/l iso-eugenol relative to exposure to 50 and 100 mg/l doses of ethyl salicylate (Trials #1 and 10). Phase 4 appeared to be unusually deep in this case. This is supported by the prolonged recovery period relative to the 50 mg/l ethyl salicylate treatment (Trial #10) and the 100 mg/l ethyl salicylate treatment (Trial #1). No muscle twitches or spasms were observed during this treatment while the apparent intensity of the alarm activity in Phases 1, 2 and 3 was reduced relative to the 50 and 100 mg/l treatments that used only ethyl salicylate. The combination of ethyl salicylate and iso-eugenol therefore exhibits synergistic properties.

Detailed Description Text (104):

Another application of the present invention is in the formulation of improved active compositions containing other food-grade aquatic sedative/anaesthetic compounds such as eugenol and iso-eugenol. A combination of ethyl salicylate and iso-eugenol has been found to be particularly advantageous and to have synergistic properties.

Other Reference Publication (2):

J. Reynolds (ed), "Martindale The Extra Pharmacopoeia", thirtieth editions, published 1993, by The Pharmaceutical Press (London) pp. 1031 and 1368.

Other Reference Publication (3):

A. Gennaro (ed), "Remington's Pharmaceutical Sciences", seventeenth edition published 1985, by Mack Publishing Company (Easton, Pennsylvania) p. 1306.

## CLAIMS:

8. A method as claimed in claim 6 wherein said admixture contains at least one of methyl and ethyl salicylate, and at least one of eugenol and iso-eugenol.
9. A method as claimed in claim 8 wherein said admixture contains ethyl salicylate and iso-eugenol.
17. A composition as claimed in claim 16 wherein said additional agents are selected from eugenol and iso-eugenol.
19. A composition as claimed in claim 18 which comprises an admixture of methyl salicylate and one or both of eugenol and iso-eugenol.
20. A composition as claimed in claim 18 which comprises an admixture of ethyl salicylate and one or both of eugenol and iso-eugenol.
21. A composition as claimed in claim 18 which comprises an admixture of methyl salicylate, ethyl salicylate and one or both of eugenol and iso-eugenol.
22. A composition as claimed in claim 18 which comprises ethyl salicylate and iso-eugenol.

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DATE-ISSUED: July 25, 2000

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jerrett; Allstair R.	Nelson			NZ
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NAME	CITY	STATE	ZIP	CODE	COUNTRY	TYPE	CODE
New Zealand Institute for Crop & Food Research Limited	Canterbury				NZ	03	

DATE FILED: October 10, 1997

COUNTRY	APPL-NO	APPL-DATE
NZ	270651	March 7, 1995

APPL-NO	DATE-FILED	PUB-NO	PUB-DATE	371-DATE	102 (E) -DATE
PCT/NZ96/00015	March 7, 1996	WO96/27377	Sep 12, 1996	Mar 12, 1999	Mar 12, 1999

US-CL-ISSUED: 514/159; 514/731  
US-CL-CURRENT: 514/159; 514/731

PRIOR-ART-DISCLOSED:

Search Selected

Search ALL

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4275059	June 1981	Flora et al.	514/159
4404198	September 1983	Kelley	514/159
4431631	February 1984	Clipper	424/53
5096709	March 1992	Vandersloot	424/195.1

## FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
WO 92/18097	0000	WO	

## OTHER PUBLICATIONS

S. Budavari (ed), "The Merck Index", eleventh dedition, published 1989, by Merck & Co., Inc. (Rahway, U.S.A.) pp. 605, 612, 813, 961 and 1207.  
J. Reynolds (ed), "Martindale The Extra Pharmacopoeia", thirtieth editions, published 1993, by The Pharmaceutical Press (ILondon) pp. 1031 and 1368.  
A. Gennaro (ed), "Remington's Pharmaceutical Sciences", seventeenth edition published 1985, by Mack Pulblishing Company (Easton, Pennsylvania) p. 1306.  
Derwent Abstract Accession No. 42127 D/24, BE, 887315 (Colgate Palmolive Co) May 14, 1981.

ART-UNIT: 164

PRIMARY-EXAMINER: Weddington; Kevin E.

## ABSTRACT:

Methods for sedating, anaesthetising and/or euthanising aquatic organisms, wherein the organism is contacted with methyl salicylate, ethyl salicylate or both, usually in solution. Active compositions for use in such methods are also provided, including compositions containing one or both of methyl salicylate and ethyl salicylate in combination with one or both of eugenol and iso-eugenol.

24 Claims, 0 Drawing figures

## WEST Search History

DATE: Tuesday, February 11, 2003

**Set Name Query**

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**Hit Count Set Name**

result set

*DB=USPT,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ*

L13	L11 AND EUGENOL.CLM.	56	L13
L12	L11 AND EUGENOL.TI.	5	L12
L11	PHARMACEUTICAL AND EUGENOL	628	L11
L10	L9 AND EUGENOL	0	L10
L9	OITA.INV.	186	L9
L8	RO0084026	0	L8
L7	RO084026	0	L7
L6	RO84026	0	L6
L5	L4 AND BACTERICIDAL.TI.	11	L5
L4	CHLORHEXIDINE.TI.	314	L4
L3	FR1991-13919 OR FR1991013919 OR FR199113919	0	L3
L2	WO93009770	0	L2
L1	WO9309770	0	L1

END OF SEARCH HISTORY